Application No.: 10/522,059 MAT-8640US

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No:

10/522,059

Applicant:

Jun Shinozaki et al.

Filed:

January 20, 2005

Title:

METHOD OF MANUFACTURING

PLASMA DISPLAY PANELS

T.C./A.U.:

1792

Examiner: Rakesh Kumar Dhingra

Confirmation No.: 1894

Docket No.: MAT-8640US

## INTERVIEW SUMMARY

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicants acknowledge with thanks the courtesy extended to their representative by Examiner Dhingra during the telephone interview of August 7, 2009.

During the course of the interview, Applicants' representative explained the following:

- 1) On July 13, 2009, an amendment was fax filed with the USPTO. The amendment included formality errors.
- On July 13, 2008, a second amendment was fax filed with the USPTO. The second amendment corrected the formality errors that appeared in the first amendment.
- The IFW shows a copy of the first fax filed amendment. The second fax filed 3) amendment does not appear in the IFW.
- A copy of the second amendment fax filed on July 13, 2009 is enclosed with this interview summary.

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5) The Examiner is respectfully requested to enter the second amendment that was fax filed on July 13, 2009, a copy of which is enclosed with this Interview Summary. Examination should occur on the copy of the amendment that is enclosed with this Interview Summary.

Respectfully submitted

Lawrence E. Ashery, Reg. No. 34,515 Attorney for Applicants

LEA/dmw

Enclosure: Copy/Amendment

Dated: August 10, 2009

P.O. Box 980 Valley Forge, PA 19482 (610) 407-0700

495109



Suite 301, One Westlakes, Berwyn P.O. Box 980
Valley Forge, PA 19482-0980 Phone: 610-407-0700 Fax: 610-407-0701

Nemours Building 1007 Orange Street, Suite 1100 P.O. Box 1596 Wilmington, DE 19899 Phone: 302-778-2500 Fax: 302-778-2600

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DATE: July 13,	2009 TIM	ME:					
то:	USPTO	FAX NO.:	1-571-273-2885				
FROM:	Lawrence E. Ashery	ADMIN. ASST.:	Donna M. Wellings				
APPLN. NO.:	10/522,059	ATTY. DOCKET NO.:	MAT-8640US				
TITLE OF APPLN.:	TITLE OF APPLN.: METHOD OF MANUFACTURING PLASMA DISPLAY PANELS						
FILING DATE:	January 20, 2005	ART UNIT:	1792				
FIRST INVENTOR:	Jun Shinozaki, et al.	CONF. NO.:	1894				
TITLE OF DOCUMENT (and List of Attachments): Amendment							
Transmittal Form - Amendment							
			<u> </u>				
Total Number of Pages: $\underline{\mathcal{I}}$ (including this form)							
COMMENTS							

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		Application Number	10/52	10/522,059					
TRANSMITTAL FORM (to be used for all correspondence after initial filing)			Filing Date	Janua	January 20, 2005				
			First Named Inventor	Jun S	Jun Shinozaki, et al.				
			Art Unit	1792					
			Examiner Name	Rakesh Kumar Dhingra					
	Total Number of Pages in This Submission		Attorney Docket No.	MAT-8640US					
ENCLOSURES (Check all that apply)									
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	Fee Attached	Licen	sing-related Papers			to TC			
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	Certified Copy of Priority Document(s)		CD, Number of CD(s) Landscape Table on CD						
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Response to Missing Parts under 37 CFR 1.52 or 1.53						COD			
SIGNATURE OF APPLICANT, ATTORNEY OR AGENT									
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Signature Aurena C. Chan									
Printed Name Lawrence E. Ashery									
Date July 13, 2009 Registration No. 34,515									
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Typed or Printed Name Lawrence E. Ashery Date July 13, 2009									

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Appln. No:

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Rakesh Kumar Dhingra

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#### **AMENDMENT**



Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Responsive to the Office Action dated March 13, 2009, please amend the above-identified application as follows:

	Amendments to the Specification begin on page	of this paper.
$\boxtimes$	<b>Amendments to the Claims</b> are reflected in the listi on page <b>2</b> of this paper.	ng of claims which begins
	Amendments to the Drawings begin on page include an attached replacement sheet(s).	of this paper and
	Amendments to the Abstract are on page of version of the Abstract is on page of this paper	this paper. A clean
$\boxtimes$	Remarks/Arguments begin on page of this	paper.

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#### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### Listing of Claims:

1. (Currently Amended) A method of manufacturing a plasma display panel, the method comprising the steps of:

providing a substrate holder above a source of deposition material, the substrate holder including:

a first frame for holding a substrate of the plasma display panel, said first frame holding the substrate has a protrusion extending from below a bottom surface of the substrate along a side surface of the substrate to a height above the substrate and greater than a height of the substrate without being superimposed over the top surface of the substrate; and

a second frame having an opening, the protrusion between the substrate and the opening so that the substrate is on one side of the protrusion and the opening is on the other side of the protrusion and an unobstructed path exists from said source of deposition material to a top surface of said substrate;

providing the plasma display panel which is held by the substrate holder for deposition;

spraying a-said deposition material onto said plasma display panelbottom surface of said substrate from below the substrate;

and permitting an additional amount of said deposition material to flow through said opening from below the substrate.

2. (Previously Presented) The method of manufacturing a plasma display panel as defined in Claim 1, wherein a height of the protrusion is between 1 mm and 100 mm.



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- 3. (Previously Presented) The method of manufacturing a plasma display panel as defined in Claim 1, the first frame comprising holding means including support means for supporting the substrate from underneath and positioning means for positioning the substrate in a planar direction, wherein the substrate is held by fitting the substrate to the positioning means and placing the substrate on the support means.
- 4. (Currently Amended) A substrate holder system for a plasma display panel, the substrate holder system comprising:
- a first frame for holding a substrate of the plasma display panel, said first frame being provided with a protrusion extending from below a bottom surface of the substrate along a side surface of the substrate to a height above the substrate greater than a height of the substrate without being superimposed over the top surface of the substrate,
- a second frame having an opening, the protrusion between the substrate and the opening so that the substrate is on one side of the protrusion and the opening is on the other side of the protrusion;

and a source of deposition material below said substrate which sprays said deposition material towards the bottom surface of the substrate and through the opening;

wherein an unobstructed path exists from said source of deposition material to a top surface of said substrate.

- (Previously Presented) The substrate holder system for a plasma display panel as defined in Claim 4, wherein a height of the protrusion is between 1 mm and 100 mm.
- 6. (Previously Presented) The substrate holder system for a plasma display panel as defined in Claim 4, the first frame comprising holding means including support means for supporting the substrate from underneath and positioning means for positioning the substrate in a planar direction, wherein the substrate is held by

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fitting the substrate to the positioning means and placing the substrate on the support means.

- 7. (Previously Presented) The substrate holder system for a plasma display panel as defined in Claim 4, wherein the first frame includes a plurality of supports separated from each other which extend below the bottom surface of the substrate.
- 8. (Previously Presented) The substrate holder system for a plasma display panel as defined in Claim 4, said second frame maintained with said opening while said substrate is situated in said first frame.
- 9. (Previously Presented) A method of manufacturing a plasma display panel as defined in Claim 1, wherein the protrusion curves away from the substrate.

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#### Remarks/Arguments:

Claims 1, 2, 4, 5, and 8 have been rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Yamazaki (US 2002/0132047) and Spahn (US 6,237,529). It is respectfully submitted, however, that these claims are patentable over the art of record for the reasons set forth below.

Page 9, line 25 of Applicants' specification explains that generated vapor flow 38e is deposited on the surface of substrate 13. Applicants' Fig. 2 shows that the vapor flow forms protective layer 18 on the bottom of the substrate.

Page 11, line 11 of Applicants' specification states:

...a proportion of the deposition material passing through opening 4 of substrate holder 1 reaches and deposits on non-deposition face 13b of substrate 13. However, protrusion 5...suppresses this phenomenon.

Thus, Applicants' claim 1 now recites the feature of:

...an unobstructed path exists from said source of deposition material to a top surface of said substrate...

Yamazaki was cited in the outstanding office action as teaching a protrusion that extends to a height above Yamazaki's substrate. This protrusion appears in Fig. 1 of Yamazaki. This protrusion, however, creates an obstruction between his source of deposition material and the top surface of his substrate. Thus, one of ordinary skill in the art would not rely on Yamazaki to obtain Applicants' claim 1.

Spahn was also cited in the outstanding office action as teaching a protrusion that extends to a height above Spahn's substrate. Applicants respectfully disagree as Fig. 4 of Spahn appears to show protrusions that extend only below his substrate (i.e. not above). In addition, Spahn's protrusions 104 create obstructions between his source of deposition material and the top surface of his substrate. Thus, one of ordinary skill in the art would not rely on Spahn to obtain Applicants' claim 1.

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Applicants' admitted prior art lacks any teaching of Applicants' claimed protrusion. That is why the rejection attempted to combine the admitted prior art with other references.

Accordingly, the combination of references cited in the outstanding office action neither discloses nor suggests Applicants' claim 1. Withdrawal of the rejection is respectfully requested.

Claim 4, while not identical to claim 1 is also patentable over the art of record for reasons similar to those set forth above with regard to claim 1.

Claims 2, 5 and 8 are patentable by virtue of the dependency on allowable claims 1 and 4.

In view of the arguments set forth above, allowance of claims 1, 2, 4, 5, and 8 is respectfully requested.

Claims 3, 6, 7 and 9 have been rejected under 35 U.S.C. 103(a) by combining applicants' admitted prior art, Yamazaki, and Spahn with other references of record. These claims, however, are patentable by virtue of their dependency on allowable independent claims.

In view of the amendments and arguments set forth above, this application is

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in condition for allowance which action is respectfully requested.

Respectfully submitted,

Lawrence E. Ashery, Reg. No. 34,515

Attorney for Applicants

LEA/dmw

Dated: July 13, 2009

P.O. Box 980 Valley Forge, PA 19482 (610) 407-0700

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The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being facsimile transmitted to the Unites States Patent and Trademark Office on July 13, 2009.

Lawrence E. Ashery, Reg. No. 34,515